

REMARKS

Claims 13-32 are pending and under consideration.

Claims 13-19 and 21-29 are rejected under 35 USC §102(e) as being anticipated by US Patent Publication No. 2003/0147362 to Dick et al. The remaining claims are rejected as being obvious over Dick et al. in view of US Patent No. 5,889,759 to McGibney.

The present invention relates to using two different synchronization methods in a cellular radio communication system. The first synchronization method is based on dedicated synchronization signals. The second method determines synchronization values for the base station and mobile station. Specifically, a time synchronization value and frequency synchronization value are determined. These values are determined based on an evaluation of signals received from neighboring stations. The second synchronization method is only applicable if the number of mobile stations is sufficiently high. Claim 13, for example, recites

if the number of mobile stations is below the threshold value, then using the first synchronization method for synchronizing the base station and the mobile stations assigned to the base station, the first synchronization method corresponding to an assigned standard of the radio communication system;

if the number of mobile stations exceeds the threshold value, then using a second synchronization method in which the base station evaluates the signals received from the mobile stations to determine a time synchronization value and a frequency synchronization value to which the base station synchronizes itself, ...

The claims clearly recite that if the number of mobile stations exceeds a threshold value, then the second synchronization method is used. The claims are very specific that the term "threshold" refers to the number of mobile of stations assigned to a radio cell.

Dick et al. discloses that synchronization can be a managed, centralized approached or a decentralized approach. See paragraph [0016] of the reference. Dick et al. also discloses that the radio network controller (RNC) decides whether to use a base station or a user equipment to obtain out-of-sync information. See paragraph [0041].

Referring to Figs. 5a and 5b of the reference, in STEP 502, the RNC detects that a base station's time error variance exceeds a threshold. Clearly, the time error variance is not the same as the number of mobile stations. Continuing in the flow diagram, after STEP 509, the process determines whether a difference is greater than a threshold. If the difference is not greater than the threshold, the process returns to STEP 502, and if the difference is greater than the

threshold, the process continues to STEP 510. In this decision box, the term "threshold" refers to time measurements for the base station time of arrival (BSTOA) as described in paragraph [0041] or the time difference of arrival (TDOA) as described in paragraph [0030].

From the above, it should be clear that the process described in Dick et al. is very different from the claimed invention. For example, Dick et al. does not disclose or suggest the features relating to choosing a synchronization method based on the number of mobile stations.

McGibney is cited only for the orthogonal frequency-division multiplexing (OFDM) limitations recited in claims 20 and 30-32. McGibney does not compensate for the deficiencies discussed above with regard to Dick et al. Accordingly, the prior art rejections should be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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